CHAPTER 9
Shocks

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SPECIAL TOOLS

Shock Rebuilding Tools

Special Tools

PART NUMBER	DESCRIPTION
2200421	Gas Shock Recharging Kit
2201639	Shock Shaft Seal Protector .50" Diameter
2201640	Shock Shaft Seal Protector .625" Diameter
2870623	Shock Absorber Spring Compression Tool
2870803	Shock Spring Pre-Load Adjustment Tool
PS-45259	Gas Fill Tool

Ryde FX Shock Special Tools

PART NUMBER	DESCRIPTION
PS-45259	Gas Fill Tool and Gauge (Incl. 5 needles)
PS-45259-1	Gas Fill Needles replacement pack
PS-45259-2	Gas Fill Gauge (replacement)
PS-45260	Lower Retainer Wrench
PS-45261	IFP Positioning / Extraction tool
PS-45262	Cylinder Head Wrench
PS-45263	Wear Band Tool
PS-45629	Arvin Shock Body Holder
PS-45280	Shock Collar Tool
PS-45821	Shock Reservoir Holder

FOX Shock Special Tools

PART NUMBER	DESCRIPTION
2871021	Shock Body Holding Tool
2871352	Shock Rod Holding Tool .50" Diameter Rod
2872429	Shock Rod Holding Tool .625" Diameter Rod
2871232	Fox Shock Spanner
2871351	Fox Shock IFP Depth Tool
PS-44925	Fox Inner Tube Puller PS 2

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VALVE SHIMS

Shock shim stacks can be adjusted to control the amount of fluid that is forced by as the piston travels through its motion. Refer to the appropriate parts manual for a complete listing of shock parts.

Ryde FX™ Shock Valve Part Numbers

PART NUMBER	SIZE	THICKNESS
1700080	0.700	0.004
1700086	0.800	
1700092	0.900	
1700081	0.700	0.006
1700087	0.800	
1700093	0.900	
1700121	1.000	
1700129	1.100	
1700134	1.250	
1700139	1.300	
1700094	0.900	0.008
1700122	1.000	
1700130	1.100	
1700135	1.250	
1700140	1.300	
1700082	0.700	0.009
1700088	0.800	
1700083	0.700	0.010
1700089	0.800	
1700095	0.900	
1700126	1.000	
1700131	1.100	
1700136	1.250	
1700141	1.300	
1700084	0.700	0.012
1700090	0.800	
1700096	0.900	
1700127	1.000	
1700132	1.100	
1700137	1.250	
1700142	1.300	
1700085	0.700	0.015
1700091	0.800	
1700120	0.900	
1700128	1.000	
1700133	1.100	
1700138	1.250	
1700143	1.300	

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Fox™ Shock Valve Part Numbers

PART NUMBER	SIZE	THICKNESS
1500055	0.700	0.006
1500054	0.800	
1500053	0.900	
1500048	1.000	
1500049	1.100	
1500050	1.250	
1500052	1.300	
1500029	0.700	0.008
1500028	0.800	
1500033	0.900	
1500032	1.000	
1500031	1.100	
1500051	1.250	
1500030	1.300	
1500044	0.700	0.010
1500047	0.800	
1500046	0.900	
1500045	1.000	
1500027	1.100	
1500026	1.250	
1500062	1.300	
1500056	0.700	0.012
1500057	0.800	
1500058	0.900	
1500059	1.000	
1500060	1.100	
1500078	1.250	
1500079	1.300	
1500081	0.700	0.015
1500082	0.800	
1500083	0.900	
1500084	1.000	
1500085	1.100	
1500086	1.250	
1500087	1.300	

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Walker Evans™ Shock 3/8" Valve Part Numbers

PART NUMBER	SIZE	THICKNESS
1800051	.700	.006
1800075	.800	
1800076	.900	
1800077	1.000	
1800078	1.100	
1800079	1.200	
1800080	1.300	
1800081	.700	.008
1800082	.800	
1800083	.900	
1800084	1.000	
1800085	1.100	
1800086	1.200	
1800087	1.250	
1800088	1.300	
1800052	.700	.010
1800053	.800	
1800054	.900	
1800055	1.000	
1800056	1.100	
1800057	1.200	
1800379	1.250	
1800058	1.300	
1800059	.700	.012
1800060	.800	
1800061	.900	
1800062	1.000	
1800063	1.100	
1800064	1.200	
1800089	1.250	
1800072	1.300	
1800066	.700	.015
1800067	.800	
1800068	.900	
1800069	1.000	
1800070	1.100	
1800380	1.200	
1800071	1.250	
1800072	1.300	
1800090	1.000	.025
1800091	1.100	
1800092	1.200	
1800093	1.300	
1800050	.625	.065
1800204	.875	.090

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Walker Evans™ Shock Valve Part Numbers - 7/16″ I.D.

PART NUMBER	SIZE	THICKNESS
1800244	.900	.010
1800245	1.000	
1800246	1.100	
1800247	1.200	
1800248	1.300	
1800249	1.450	
1800250	1.500	
1800251	1.550	
1800252	.900	.012
1800253	1.000	
1800254	1.100	
1800255	1.200	
1800256	1.300	
1800257	1.450	
1800258	1.500	
1800259	1.550	
1800260	.900	.015
1800261	1.000	
1800262	1.100	
1800263	1.200	
1800264	1.300	
1800265	1.450	
1800266	1.500	
1800267	1.550	
1800268	1.000	.090 (WASHERS)
1800269	1.100	
1800270	1.250	
1800271	1.300	.025

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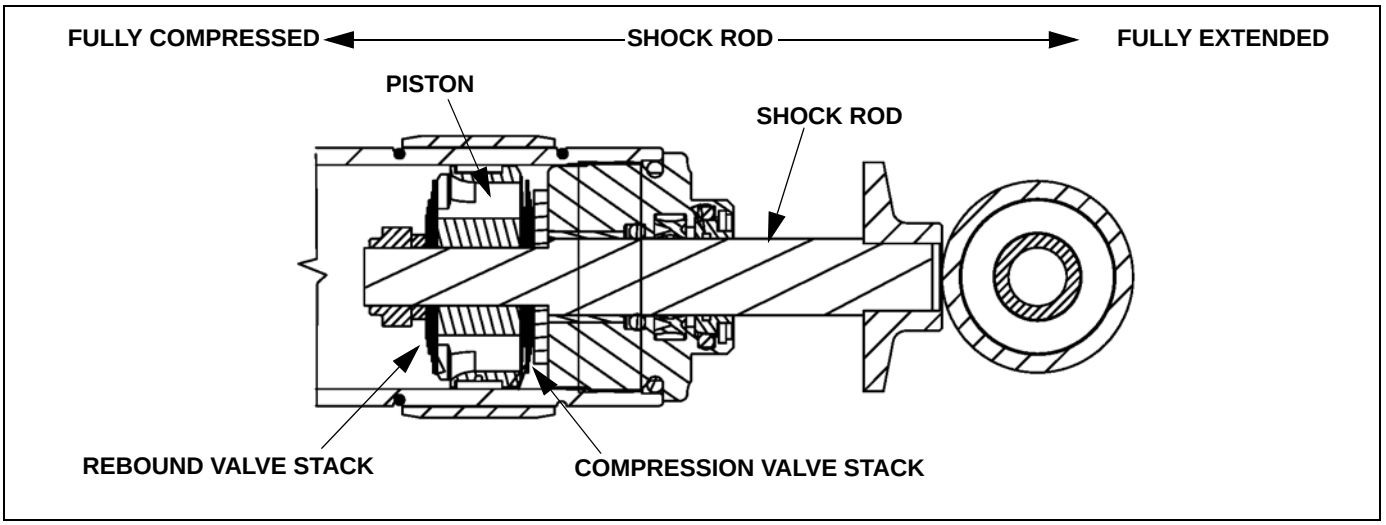
Valve Shim Arrangement

Shown below is an example of how valving stacks are arranged.

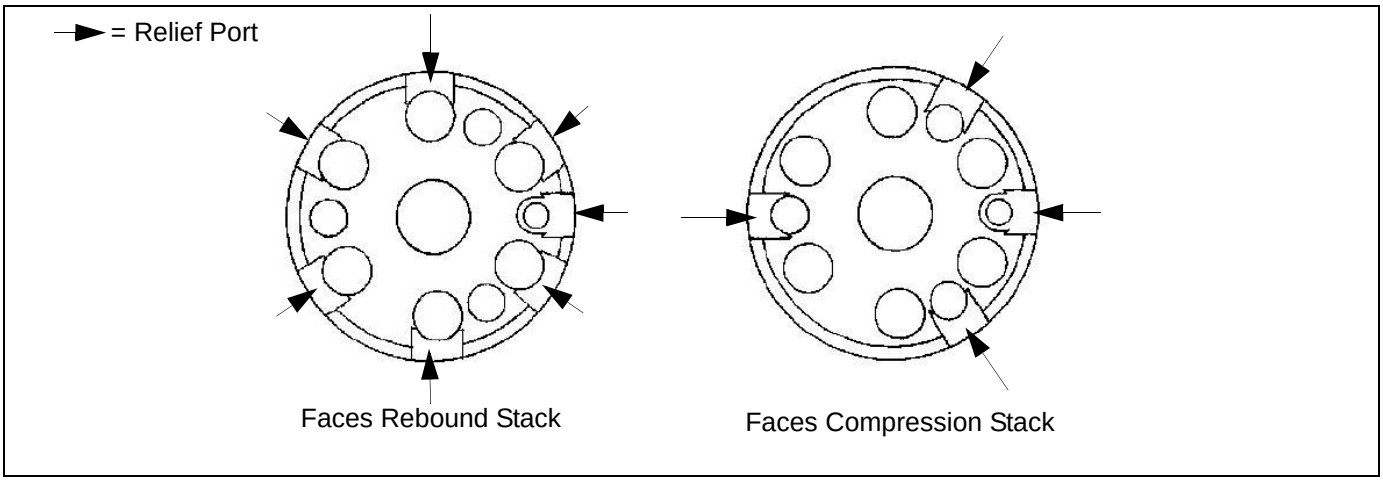
NOTE: The rebound and compression valve stacks will always be positioned as shown in the illustration, regardless of how the shock assembly is installed on the snowmobile.



Piston Orientation

The face of the piston with the greater number of relief ports will always face the rebound valve stack

NOTE: On some Walker Evans™ shocks the piston is color-coded.
Blue = COMPRESSION SIDE
Red = REBOUND SIDE.



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SPECIFICATIONS

2007 Shock Specifications

Front Suspension Shocks

SHOCK PN	MODEL	EXTENDED LENGTH IN	COLLAPSED LENGTH IN	STROKE IN	SHOCK ROD IN	IFP DEPTH IN	OIL VOLUME	PSI
7042258	Ryde FX	18.00	11.8	6.2	.49	6.92	Full	200
7043245	Ryde FX	18.00	11.8	6.2	.49	6.92	Full	200
7043141	Fox	18.00	11.8	6.2	.50	1.42	Full	200
7043268 (LH) 7043269 (RH)	Fox	18.00	11.8	6.2	.49	2.55	Full	200
7043095	Walker Evans	18.00	11.738	6.27	.625	2.25	Full	200
7043090	Ryde FX	17.00	11.20	5.80	.49	6.54	Full	200
7043082	Ryde FX	16.25	12.76	5.25	.49	6.27	Full	280
7043206	Walker Evans	18.00	10.13	6.26	.625	2.25	Full	200
7043233	Walker Evans Air	17.02	11.27	5.75	1.124	N/A	95cc	215 220 - 225 (Opt.)

Front Track Shocks

SHOCK PN	MODEL	EXTENDED LENGTH IN	COLLAPSED LENGTH IN	STROKE IN	SHOCK ROD IN	IFP DEPTH IN	OIL VOLUME	PSI
7041975	Ryde FX	12.10	8.60	3.5	.50	4.61	Full	200
7043142	Fox	12.51	8.92	3.59	.50	.840	Full	200
7043244	Ryde FX	12.12	8.61	3.52	.50	4.68	Full	200
7043267	Fox	12.07	8.63	3.44	.50	1.8	Full	200
7043204 (7043383)*	Walker Evans	12.10	8.60	3.50	.625	2.25	Full	200
7043234	Walker Evans Air	12.49	8.92	3.57	1.124	N/A	70cc	215 210 - 220 (Opt.)

NOTE: * = Original PN subs to (#######) number. Reference new PN's specifications when servicing.

Rear Track Shocks

SHOCK PN	MODEL	EXTENDED LENGTH IN	COLLAPSED LENGTH IN	STROKE IN	SHOCK ROD IN	IFP DEPTH IN	OIL VOLUME	PSI
7043177	Fox	15.60	10.56	5.04	.50	1.22	Full	200
7043246	Fox	16.60	10.91	5.96	.50	2.23	Full	200
7043266	Fox	15.65	10.56	5.09	.50	1.63	Full	200
7043205	Walker Evans	15.60	10.56	5.04	.625	2.25	Full	200
7043216	Fox	14.12	9.29	4.83	.50	2.40	Full	300
7043235	Walker Evans	16.71	10.96	5.75	.50	7.25	Full	200

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2007 Shock Valve Shim Stack Configurations

NOTE: All measurements are in inches.

2007 Front Suspension Shocks

SHOCK	7042258	7043141	7043268 7043269	7043095	7043090	7043082	7043206	7043233 (Stock)	7043233 (Optional)
REBOUND	.700 x .008 .800 x .008 .900 x .008 1.000 x .008 1.100 x .008 1.250 x .008	.620 x .093 .700 x .012 .800 x .012 .900 x .012 1.000 x .010 1.100 x .010 .700 x .008 1.250 x .008	.620 x .093 .700 x .015 .800 x .015 .900 x .012 1.00 x .010 1.100 x .010 .700 x .008 1.250 x .008	.625 x .065 .700 x .010 .800 x .010 .900 x .010 1.00 x .010 1.10 x .008 1.20 x .008	.700 x .008 .800 x .008 .900 x .008 1.000 x .008 1.100 x .008 1.250 x .008	.800 x .010 .900 x .010 1.000 x .010 1.100 x .010 1.250 x .006	.625 x .065 .700 x .010 .800 x .010 .900 x .010 1.00 x .010 1.10 x .008 1.20 x .008	.625 x .065 .700 x .010 .800 x .010 .900 x .010 1.00 x .010 1.10 x .012 1.10 x .010 1.20 x .012 1.20 x .010	.700 x .010 .800 x .010 .900 x .010 1.000 x .010 1.100 x .010 1.100 x .015 1.200 x .015 1.250 x .015 1.250 x .015
Piston Orifice	.060	.078	.078	.052	.081	.093	.052 (Shaft Bleed .082)	.052	.052
COMPRESSION	1.300 x .008 1.100 x .006 .800 x .008 1.250 x .006 1.100 x .008 1.000 x .006 .900 x .006 .800 x .006 .700 x .015	1.300 x .006 1.100 x .008 .800 x .008 1.250 x .008 1.100 x .08 1.000 x .008 .900 x .008 .700 x .012 .700 x .012 1.125 x .093	1.300 x .006 1.000 x .010 1.250 x .008 .900 x .010 1.100 x .008 1.000 x .008 .900 x .008 .800 x .008 .700 x .010 1.125 x .093	1.30 x .006 1.00 x .012 1.20 x .006 .900 x .012 1.10 x .006 1.00 x .006 .900 x .006 .800 x .006 .700 x .006 .625 x .065 .875 x .090	1.300 x .008 1.100 x .006 .800 x .008 1.250 x .006 1.100 x .008 1.000 x .006 .900 x .006 .800 x .006 .700 x .015	1.300 x .008 1.250 x .008 .900 x .006 1.300 x .010 1.250 x .008 1.100 x .010 1.000 x .012 .900 x .012 .800 x .012	1.30 x .006 1.00 x .012 1.20 x .006 .900 x .012 1.10 x .006 1.00 x .006 .900 x .006 .800 x .006 .700 x .006 .625 x .065 .875 x .090	1.30 x .015 1.20 x .015 1.20 x .010 1.10 x .015 1.10 x .010 1.00 x .015 .900 x .010 .800 x .010 .700 x .010 .625 x .065 1.30 x .150	1.300 x .015 1.300 x .015 1.300 x .015 1.250 x .015 1.200 x .015 1.200 x .010 1.100 x .015 1.000 x .015 .900 x .010 .800 x .010 .700 x .010 1.300 x .150

NOTE: Valve shim stacks listed as they would appear on the shaft when shock rod is locked in a table vise (eyelet down, threaded end up).

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2007 Front Track Shocks

SHOCK	7041975	7043142	7043244	7043267	7043204 (7043383)	7043234
REBOUND	.800 x .012 .900 x .012 1.00 x .010 1.100 .010 1.250 x .008	.620 x .093 .700 x .015 .800 x .015 .900 x .012 .900 x .012 1.000 x .010 1.100 x .010 .800 x .008 1.250 x .008	.700 x .010 .800 x .012 .900 x .010 1.000 x .010 1.100 x .010 1.250 x .010	.620 x .093 .700 x .015 .800 x .015 .800 x .015 .900 x .012 1.000 x .010 1.100 x .010 .800 x .006 1.250 x .008	.625 x .065 .700 x .012 .800 x .012 .900 x .012 1.000 x .012 1.100 x .012 1.200 x .012	.625 x .065 .700 x .015 .800 x .015 .900 x .015 1.00 x .015 1.10 x .015 1.20 x .015 1.25 x .015
Piston Orifice	.070	.078	.070	.070	.082	.052
COMPRESSION	1.300 x .008 1.000 x .006 1.300 x .008 1.100 x .010 1.000 x .008 .900 x .008 .800 x .008	1.300 x .006 1.250 x .008 .900 x .008 1.250 x .008 1.100 x .008 .900 x .008 .700 x .012 .700 x .012 1.125 x .093	1.300 x .008 1.100 x .006 .900 x .008 1.250 x .008 1.100 x .008 1.000 x .010 .900 x .010 .800 x .008	1.300 x .010 1.250 x .008 1.100 x .008 .900 x .008 .800 x .008 .700 x .008 .700 x .012 1.125 x .093	1.30 x .012 1.20 x .012 1.10 x .012 1.00 x .012 .900 x .012 .800 x .012 .700 x .012 .625 x .065	1.30 x .015 1.30 x .015 1.25 x .015 1.20 x .015 1.10 x .015 1.00 x .015 .900 x.015 .800 x .015 .700 x .015 1.30 x .025 1.30 x .025 .875 x .090 1.30 x .025

NOTE: Valve shim stacks listed as they would appear on the shaft when shock rod is locked in a table vise (eyelet down, threaded end up).

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2007 Rear Track Shocks

SHOCK	7043177	7043246	7043266	7043205	7043216	7043235
REBOUND	.620 x .093 .800 x .012 .900 x .012 1.000 x .012 1.100 x .012 1.250 x .010 1.250 x .010	.950 x .050 .950 x .050 .900 x .008 1.100 x .015 1.100 x .015 .700 x .006 1.250 x .008	.950 x .050 .950 x .050 .800 x .008 .900 x .008 1.000 x .010 1.100 x .010 .700 x .008 1.250 x .008	.625 x .065 .700 x .010 .800 x .010 .900 x .010 1.00 x .010 1.10 x .010 .800 x .008 1.25 x .012	.620 x .093 1.125 x .093 1.100 x .010 1.250 x .012	.625 x .065 .700 x .010 .800 x .010 .900 x .010 1.00 x .010 1.10 x .010 1.25 x .012
Piston Orifice	.093	.070	.076	.082	.055	.040
COMPRESSION	1.300 x .008 1.300 x .008 1.000 x .006 1.100 x .008 1.100 x .010 1.100 x .012 1.000 x .010 .900 x .010 1.125 x .093	1.300 x .008 1.250 x .008 .800 x .008 1.250 x .012 1.100 x .012 1.000 x .010 .700 x .015 .700 x .015 .700 x .015 1.125 x .093	1.300 x .006 1.250 x .008 .900 x .010 1.250 x .010 1.100 x .008 1.000 x .008 .900 x .010 .700 x .015 .700 x .015 .700 x .015 1.125 x .093	1.30 x .010 1.25 x .010 .700 x .010 1.10 x .008 .900 x .008 1.10 x .008 1.00 x .010 .900 x .010 .800 x .008 .700 x .008 .625 x .065 .875 x .090	1.300 x .008 1.300 x .006 .800 x .010 1.300 x .010 1.300 x .008 1.300 x .008 .900 x .008 1.125 x .093	1.30 x .010 1.25 x .010 1.10 x .008 1.10 x .008 1.00 x .010 .900 x .010 .800 x .008 .700 x .010 .875 x .090

NOTE: Valve shim stacks listed as they would appear on the shaft when shock rod is locked in a table vise (eyelet down, threaded end up).

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2008 Shock Specifications

2008 Front Suspesion Shocks

SHOCK PN	MODEL	EXTENDED LENGTH IN	COLLAPSED LENGTH IN	STROKE IN	SHOCK ROD IN	IFP DEPTH IN	OIL VOLUME	PSI
7043245	Ryde FX	17.98	11.77	6.21	.49	6.92	Full	200
7043315	Ryde FX 2.0	18.00	11.80	6.20	N/A	5.75	Full	36mm (Rod) Cylinder= 145 PSI 47mm (Body) Cylinder= 60 PSI
7043364 (7043490)*	Walker Evans Air	17.02	11.27	5.75	1.124	N/A	95cc	220

NOTE: * = Original PN subs to (#######) number. Reference new PN's specifications when servicing.

2008 Front Track Shocks

SHOCK PN	MODEL	EXTENDED LENGTH IN	COLLAPSED LENGTH IN	STROKE IN	SHOCK ROD IN	IFP DEPTH IN	OIL VOLUME	PSI
7043244	Ryde FX	12.12	8.61	3.52	.50	4.68	Full	200
7043365	Walker Evans Air	12.49	8.92	3.57	1.124	N/A	60cc	217.5

2008 Rear Track Shocks

SHOCK PN	MODEL	EXTENDED LENGTH IN	COLLAPSED LENGTH IN	STROKE IN	SHOCK ROD IN	IFP DEPTH IN	OIL VOLUME	PSI
7043177	Fox	15.60	10.56	5.04	.50	1.22	Full	200
7043216	Fox	14.12	9.29	4.83	.50	2.40	Full	300
7043316	Ryde FX	15.60	10.60	5.00	.50	1.60	Full	200
7043366	Walker Evans	16.71	10.96	5.75	.50	6.75	Full	200

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2008 Shock Valve Shim Stack Configurations

NOTE: All measurements are in inches.

2008 IFS Shocks

SHOCK	7043245	7043315	7043364 (7043490)
REBOUND	.700 x .008 .800 x .008 .900 x .008 1.000 x .008 1.100 x .008 1.250 x .008	.7 x .010 .9 x .010 1.1 x .010 1.25 x .015	.625 x .065 .700 x .012 .800 x .012 .900 x .012 1.00 x .012 1.10 x .015 1.20 x .015 1.25 x .010 1.25 x .015
Piston Orifice	.060	.041	.052
COMPRESSION	1.300 x .008 1.100 x .006 .800 x .008 1.250 x .006 1.100 x .008 1.000 x .006 .900 x .006 .800 x .006 .700 x .015	1.4 x .012 .9 x .012 1.3 x .010 1.1 x .010 .7 x .010 .7 x .010	1.30 x .015 1.20 x .015 1.20 x .010 1.10 x .015 1.10 x .010 1.00 x .015 .900 x .015 .800 x .015 .700 x .015 .875 x .090

NOTE: Valve shim stacks listed as they would appear on the shaft when shock rod is locked in a table vise (eyelet down, threaded end up).

2008 Front Track Shocks

SHOCK	7043244	7043365
REBOUND	.700 x .010 .800 x .012 .900 x .010 1.000 x .010 1.100 x .010 1.250 x .010	.625 x .065 .7 x .015 .8 x .015 .9 x .015 1.0 x .015 1.1 x .015 1.2 x .015 1.2 x .015 1.25 x .015 1.25 x .015 1.25 x .015
Piston Orifice	.070	.052
COMPRESSION	1.300 x .008 1.100 x .006 .900 x .008 1.250 x .008 1.100 x .008 1.000 x .010 .900 x .010 .800 x .008	1.3 x .010 1.1 x .010 .9 x .012 .7 x .012 1.3 x .012 1.2 x .012 1.1 x .012 1.0 x .012 .9 x .012 .8 x .012 .7 x .012 .625 x .065

NOTE: Valve shim stacks listed as they would appear on the shaft when shock rod is locked in a table vise (eyelet down, threaded end up).

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2008 Rear Track Shocks

SHOCK	7043177	7043216	7043316	7043366
REBOUND	.620 x .093 .800 x .012 .900 x .012 1.000 x .012 1.100 x .012 1.250 x .010 1.250 x .010	.620 x .093 1.125 x .093 1.100 x .010 1.250 x .012	.7 x .012 .9 x .012 1.0 x .012 1.1 x .012 1.25 x .012	.625 x .065 .700 x .015 .800 x .015 .900 x .015 1.00 x .015 1.10 x .015 1.20 x .015 1.25 x .015 1.25 x .015
Piston Orifice	.093	.055	.081	.065
COMPRESSION	1.300 x .008 1.300 x .008 1.000 x .006 1.100 x .008 1.100 x .010 1.100 x .012 1.000 x .010 .900 x .010 1.125 x .093	1.300 x .008 1.300 x .006 .800 x .010 1.300 x .010 1.300 x .008 1.300 x .008 .900 x .008 1.125 x .093	1.3 x .008 1.1 x .006 1.0 x .006 .7 x .006 1.25 x .008 1.1 x .008 .9 x .008 .7 x .010	1.30 x .015 1.20 x .012 1.00 x .012 .800 x .012 1.30 x .012 1.25 x .012 1.20 x .012 1.10 x .012 1.00 x .015 .900 x .015 .800 x .015 .700 x .012 .625 x .065

NOTE: Valve shim stacks listed as they would appear on the shaft when shock rod is locked in a table vise (eyelet down, threaded end up).

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2009 Shock Specifications

Front Suspension Shocks

SHOCK PN	MODEL	EXTENDED LENGTH IN	COLLAPSED LENGTH IN	STROKE IN	SHOCK ROD IN	IFP DEPTH IN	OIL VOLUME	PSI
7043245	Ryde FX	18.00	11.80	6.20	.49	6.92	Full	200
7043452	Walker Evans	18.00	11.73	6.26	.625	2.00	Full	200
7043446	Ryde FX 2.0	18.00	11.80	6.20	N/A	5.75	Full	36mm (Rod) Cylinder= 145 47mm (Body) Cylinder= 60
7043404	Walker Evans Air	18.00	11.75	6.25	1.124	N/A	200cc	Shock = 225 Reservoir = 325
7043490	Walker Evans Air	17.02	11.27	5.75	1.124	N/A	95cc	225

Front Track Shocks

SHOCK PN	MODEL	EXTENDED LENGTH IN	COLLAPSED LENGTH IN	STROKE IN	SHOCK ROD IN	IFP DEPTH IN	OIL VOLUME	PSI
7043244	Ryde FX	12.12	8.61	3.52	.50	4.68	Full	200
7043411	Walker Evans	11.55	8.17	5.38	.625	1.30	Full	200
7043449	Walker Evans	12.34	8.84	3.50	.50	4.625	Full	200
7043388	Walker Evans Air	12.49	8.92	3.57	1.12	N/A	60cc	217.5

Rear Track Shocks

SHOCK PN	MODEL	EXTENDED LENGTH IN	COLLAPSED LENGTH IN	STROKE IN	SHOCK ROD IN	IFP DEPTH IN	OIL VOLUME	PSI
7043177	Fox	15.60	10.56	5.04	.50	1.22	Full	200
7043385	Walker Evans	15.60	10.56	5.04	.625	2.25		
7043316	Ryde FX	15.60	10.60	5.00	.50	1.60		
7043403	Walker Evans	16.71	10.96	5.75	.50	2.25		
7043366	Walker Evans	16.71	10.96	5.75	.50	6.75		

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2009 Shock Valve Shim Stack Configurations

NOTE: All measurements are in inches.

2009 IFS Shocks

SHOCK	7043245	7043452	7043315	7043404	7043490
REBOUND	.7 x .008 .8 x .008 .9 x .008 1 x .008 1.1 x .008 1.25 x .008	.63 x .063 .7 x .010 .8 x .010 .9 x .010 1 x .010 1.1 x .008 1.2 x .008	.7 x .010 .9 x .010 1.1 x .010 1.25 x .015	.625 x .065 .7 x .012 .8 x .015 .9 x .015 1 x .015 1.1 x .015 1.2 x .015 1.2 x .015 1.25 x .015 1.25 x .015 .7 x .015	.625 x .065 .7 x .012 .8 x .012 .9 x .012 1 x .012 1.1 x .015 1.2 x .015 1.25 x .010 1.25 x .015
Piston Orifice	.060	.052 .082 (Shaft Bleed)	.041	.040	.052
COMPRESSION	1.3 x .008 1.1 x .006 .8 x .008 1.25 x .006 1.1 x .008 1 x .006 .9 x .006 .8 x .006 .7 x .015	1.3 x .006 1 x .012 1.2 x .006 .9 x .012 1.1 x .006 1 x .006 .9 x .006 .8 x .006 .7 x .006 .625 x .065 .875 x .090	1.4 x .012 .9 x .012 1.3 x .010 1.1 x .010 .7 x .010 .7 x .010	.7 x .010 .7 x .012 1.3 x .015 1.2 x .015 1.2 x .012 1.1 x .015 1.1 x .012 1 x .015 .9 x .015 .8 x .015 .7 x .010 .875 x .090	1.3 x .015 1.2 x .015 1.2 x .010 1.1 x .015 1.1 x .010 1 x .015 .9 x .015 .8 x .015 .7 x .015 .875 x .090

NOTE: Valve shim stacks listed as they would appear on the shaft when shock rod is locked in a table vise (eyelet down, threaded end up).

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2009 Front Track Shocks

SHOCK	7043244	7043411	7043449	7043388
REBOUND	.7 x .010 .8 x .012 .9 x .010 1 x .010 1.1 x .010 1.25 x .010	.625 x .065 .7 x .012 .8 x .012 .9 x .012 1 x .012 1.1 x .012 1.2 x .012	.625 x .065 .7 x .012 .8 x .012 .9 x .012 1 x .012 1.1 x .012 1.2 x .012 1.25 x .012	.625 x .065 .7 x .015 .8 x .015 .9 x .015 1 x .015 1.1 x .015 1.1 x .015 1.2 x .015 1.2 x .015 1.2 x .015 1.25 x .015 1.25 x .015 1.25 x .015 .7 x .015
Piston Orifice	.070	.082	.052	.040
COMPRESSION	1.3 x .008 1.1 x .006 .9 x .008 1.25 x .008 1.1 x .008 1 x .010 .9 x .010 .8 x .008	1.3 x .010 1.2 x .010 1.1 x .010 1 x .010 .9. x .010 .8 x .010 .7 x .010 .625 x .065 .875 x .100	1.3 x .010 1.2 x .010 1.1 x .010 1 x .010 1.3 x .012 1.2 x .012 1.1 x .012 1 x .012 .9 x .012 .8 x .012 .7 x .012 .875 x .100	.7 x .015 .7 x .010 1.3 x .012 1.1 x .012 .9 x .012 .7 x .008 1.3 x .015 1.2 x .015 1.2 x .015 1.1 x .015 1 x .015 .9 x .015 .8 x .015 .7 x .012 1.3 x .025 1.3 x .025 1.3 x .025

NOTE: Valve shim stacks listed as they would appear on the shaft when shock rod is locked in a table vise (eyelet down, threaded end up).

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2009 Rear Track Shocks

SHOCK	7043177	7043385	7043316	7043403	7043366
REBOUND	.620 x .093 .800 x .012 .900 x .012 1.000 x .012 1.100 x .012 1.250 x .010 1.250 x .010	.625 x .065 .7 x .010 .8 x .010 .9 x .010 1 x .010 1.1 x .010 .8 x .008 1.25 x .006	.7 x .012 .9 x .012 1.0 x .012 1.1 x .012 1.25 x .012	.625 x .065 .7 x .015 .8 x .015 .9 x .015 1 x .015 1.1 x .015 1.2 x .015 1.25 x.015 1.25 x .015	.625 x .065 .700 x .015 .800 x .015 .900 x .015 1.00 x .015 1.10 x .015 1.20 x .015 1.25 x .015 1.25 x .015
Piston Orifice	.093	N/A .082 (Shaft Bleed)	.081	.052	.065
COMPRESSION	1.300 x .008 1.300 x .008 1.000 x .006 1.100 x .008 1.100 x .010 1.100 x .012 1.000 x .010 .900 x .010 1.125 x .093	1.3 x .006 1.25 x .006 .7 x .010 1.1 x .008 .9 x .008 1.1 x .008 1 x .010 .9 x .010 .8 x .08 .7 x.008 .625 x .065 .875 x .090	1.3 x .008 1.1 x .006 1.0 x .006 .7 x .006 1.25 x .008 1.1 x .008 .9 x .008 .7 x .010	1.3 x .015 1.3 x .015 1 x .010 1.25 x .015 1.25 x .015 1.2 x .015 1.1 x .015 1 x .015 .9 x .015 .8 x .015 .7 x .012 1.2 x .100	1.30 x .015 1.20 x .012 1.00 x .012 .800 x .012 1.30 x .012 1.25 x .012 1.20 x .012 1.10 x .012 1.00 x .015 .900 x .015 .800 x .015 .700 x .012 .625 x .065

NOTE: Valve shim stacks listed as they would appear on the shaft when shock rod is locked in a table vise (eyelet down, threaded end up).

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2010 Shock Specifications

Front Suspension Shocks

SHOCK PART NUMBER	MODEL	EXTENDED LENGTH IN	COLLAPSED LENGTH IN	STROKE IN	SHOCK ROD IN	IFP DEPTH IN	OIL VOLUME	PSI
7043245	Ryde FX	18.00	11.80	6.20	.49	6.92	Full	200
7043534	Walker Evans		11.72	6.27	.625	2.00		
7043599								
7043490	Walker Evans Air	17.02	11.27	5.75	1.124	N/A	95cc	225

Front Track Shocks

SHOCK PART NUMBER	MODEL	EXTENDED LENGTH IN	COLLAPSED LENGTH IN	STROKE IN	SHOCK ROD IN	IFP DEPTH IN	OIL VOLUME	PSI
7043244	Ryde FX	12.12	8.61	3.52	.50	4.68	Full	200
7043437		12.48	8.92	3.59	.49	4.806		
7043449	Walker Evans	12.34	8.84	3.50	.50	4.625		
7043535		11.55	8.17	3.38	.50	2.5		
7043549		12.00	8.60	3.50	.50			
7043388	Walker Evans Air	12.49	8.92	3.57	1.12	N/A	60cc	217.5

Rear Track Shocks

SHOCK PART NUMBER	MODEL	EXTENDED LENGTH IN	COLLAPSED LENGTH IN	STROKE IN	SHOCK ROD IN	IFP DEPTH IN	OIL VOLUME	PSI
7043177	Fox	15.60	10.56	5.04	.50	1.22	Full	200
7043385	Walker Evans	15.60	10.56	5.04	.625	2.25		
7043403		16.71	10.96	5.75	.50	2.25		
7043366						6.75		
7043600						2.25		
7043205		15.60	10.56	5.04	.625	2.25		
7043441	Ryde FX	16.70	10.96	5.75	.50	6.65		

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2010 Shock Valve Shim Stack Configurations

NOTE: All measurements are in inches.

2010 IFS Shocks

SHOCK	7043245	7043534	7043599	7043490
REBOUND	.7 x .008 .8 x .008 .9 x .008 1 x .008 1.1 x .008 1.25 x .008	.625 x .065 .7 x .010 .8 x .010 .9 x .010 1 x .010 1.1 x .010 1.2 x .010	.625 x .065 .7 x .012 .8 x .012 .9 x .012 1 x .012 1.1 x .012 1.2 x .012 1.25 x .015	.625 x .065 .7 x .012 .8 x .012 .9 x .012 1 x .012 1.1 x .015 1.2 x .015 1.25 x .010 1.25 x .015
Piston Orifice	.060	Shaft Bleed = .082 Piston Bleed = .052	Shaft Bleed = .082 Piston Bleed = .040	.052
COMPRESSION	1.3 x .008 1.1 x .006 .8 x .008 1.25 x .006 1.1 x .008 1 x .006 .9 x .006 .8 x .006 .7 x .015	1.3 x .006 1 x .006 1.2 x .060 .9 x .012 1.1 x .006 1 x .006 .9 x .006 .8 x .006 .7 x .006 .625 x .065 .875 x .090	1.3 x .010 1 x .008 .9 x .008 1.2 x .008 1.1 x .008 1 x .008 .9 x .008 .8 x .008 .7 x .015 .875 x .090	1.3 x .015 1.2 x .015 1.2 x .010 1.1 x .015 1.1 x .010 1 x .015 .9 x .015 .8 x .015 .7 x .015 .875 x .090
CLICKER		1.1 X .025 1 X .015 .625 X .065	1 x .025 1 x .025 .625 x .065	

NOTE: Valve shim stacks listed as they would appear on the shaft when shock rod is locked in a table vise (eyelet down, threaded end up).

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2010 Front Track Shocks

SHOCK	7043244	7043449	7043388	7043437	7043535	7043549
REBOUND	.7 x .010 .8 x .012 .9 x .010 1 x .010 1.1 x .010 1.25 x .010	.625 x .065 .7 x .012 .8 x .012 .9 x .012 1 x .012 1.1 x .012 1.2 x .012 1.25 x .012	.625 x .065 .7 x .015 .8 x .015 .9 x .015 1 x .015 1.1 x .015 1.1 x .015 1.2 x .015 1.2 x .015 1.2 x .015 1.25 x .015 1.25 x .015 1.25 x .015 .7 x .015	.7 x .010 .8 x .010 .9 x .010 1.0 x .010 1.1 x .012 1.25 x .010	.625 x .065 .7 x .010 .8 x .010 .9 x .010 1 x .010 1.1 x .010 1.25 x .010	.7 x .010 .8 x .010 .9 x .010 1.0 x .010 1.1 x .010 1.25 x .010
Piston Orifice	.070	.052	.040	.070	.070	.070
COMPRESSION	1.3 x .008 1.1 x .006 .9 x .008 1.25 x .008 1.1 x .008 1 x .010 .9 x .010 .8 x .008	1.3 x .010 1.2 x .010 1.1 x .010 1 x .010 1.3 x .012 1.2 x .012 1.1 x .012 1 x .012 .9 x .012 .8 x .012 .7 x .012 .875 x .100	.7 x .015 .7 x .010 1.3 x .012 1.1 x .012 .9 x .012 .7 x .008 1.3 x .015 1.2 x .015 1.2 x .015 1.1 x .015 1 x .015 .9 x .015 .8 x .015 .7 x .012 1.3 x .025 1.3 x .025 1.3 x .025	1.3 x .006 .9 x .008 1.25 x .012 1.1 x .008 1.0 x .008 .9 x .010 .8 x .008 .7 x .012	1.3 x .008 1.25 x .008 1.1 x .008 .9 x .008 1.25 x .012 1.1 x .012 1 x .012 .9 x .012 .8 x .010 .875 x .100	1.3 x .008 1.25 x .008 1.1 x .008 .9 x .006 1.25 x .010 1.1 x .010 1.0 x .010 .9 x .010 .8 x .010 .875 x .100

NOTE: Valve shim stacks listed as they would appear on the shaft when shock rod is locked in a table vise (eyelet down, threaded end up).

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2010 Rear Track Shocks

	7043177	7043385	7043600	7043403	7043366	7043205	7043441
REBOUND	.620 x .093 .8 x .012 .9 x .012 1 x .012 1.1 x .012 1.25 x .010 1.25 x .010	.625 x .065 .7 x .010 .8 x .010 .9 x .010 1 x .010 1.1 x .010 1.25 x .010	.625 x .065 .7 x .015 .8 x .015 .9 x.015 1 x .015 1.1 x.015 1.2 x .015 1.25 x .015 1.25 x .015	.625 x .065 .7 x .015 .8 x .015 .9 x .015 1 x .015 1.1 x .015 1.2 x .015 1.25 x.015 1.25 x .015	.625 x .065 .700 x .015 .800 x .015 .900 x .015 1.00 x .015 1.10 x .015 1.20 x .015 1.25 x .015 1.25 x .015	.625 x .065 .7 x .010 .8 x .010 .9 x .010 1 x .010 1.1 x .010 .8 x .008 1.25 x .012	.7 x .012 .8 x .012 .9 x .012 1.0 x .012 1.1 x .012 1.25 x .012 1.25 x .012
Piston Orifice	.093	Shaft Bleed = .082	.052	.052	.065	Shaft Bleed = .082	.070
COMPRESSION	1.3 x .008 1.3 x .008 1 x .006 1.1 x .008 1.1 x .010 1.1 x .012 1 x .010 .9 x .010 1.125 x .093	1.3 x .010 1.25 x .010 1.1 x .008 .9 x .008 1.1 x .008 1 x .010 .9 x .010 .8 x .010 .7 x .010 .875 x .090	1.3 x .012 1.1 x .012 .9 x .012 1.25 x .015 1.25 x .015 1.2 x .015 1.1 x .015 1 x .015 .9 x .015 .8 x .015 .7 x .012 1.2 x .100	1.3 x .015 1.3 x .015 1 x .010 1.25 x .015 1.25 x .015 1.2 x .015 1.1 x .015 1 x .015 .9 x .015 .8 x .015 .7 x .012 1.2 x .100	1.30 x .015 1.20 x .012 1.00 x .012 .800 x .012 1.30 x .012 1.25 x .012 1.20 x .012 1.10 x .012 1.00 x .015 .900 x .015 .800 x .015 .700 x .012 .625 x .065	1.3 x .010 1.25 x .010 .7 x .010 1.1 x .008 .9 x .008 1.1 x .008 1 x .010 .9 x .010 .8 x .008 .7 x .008 .625 x .065 .875 x .090	1.3 x .012 1.1 x .010 1.0 x .008 1.25 x .012 1.1 x .010 .9 x .008 .8 x .010 .7 x .012
CLICKER		1.1 x .025 1 x .015 1 x .015 .7 x .010 .875 x .090	1.1 x .025 1.1 x .025 1 x .025 1 x .025 .875 x .090	1.1 x .025 1.1 x .025 1 x .025 1 x .025 .875 x .090			

NOTE: Valve shim stacks listed as they would appear on the shaft when shock rod is locked in a table vise (eyelet down, threaded end up).

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2011 Shock Specifications

Front Suspension Shocks

SHOCK PART NUMBER	MODEL	EXTENDED LENGTH IN	COLLAPSED LENGTH IN	STROKE IN	SHOCK ROD IN	IFP DEPTH IN	OIL VOLUME	PSI
7043534	Walker Evans	18.00	11.72	6.27	.625	2.00	Full	200

Front Track Shocks

SHOCK PART NUMBER	MODEL	EXTENDED LENGTH IN	COLLAPSED LENGTH IN	STROKE IN	SHOCK ROD IN	IFP DEPTH IN	OIL VOLUME	PSI
7043676	Ryde FX	12.45	8.90	3.56	.50	4.80	Full	200
7043717	Walker Evans	12.10	8.60	3.50		4.69		

Rear Track Shocks

SHOCK PART NUMBER	MODEL	EXTENDED LENGTH IN	COLLAPSED LENGTH IN	STROKE IN	SHOCK ROD IN	IFP DEPTH IN	OIL VOLUME	PSI
7043205	Walker Evans	15.60	10.56	5.04	.625	2.25	Full	200
7043441	Ryde FX	16.70	10.96	5.75	.50	6.65		

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2011 Shock Valve Shim Stack Configurations

NOTE: All measurements are in inches.
Valve shim stacks listed as they would appear on the shaft when shock rod is locked in a table vise (eyelet down, threaded end up).

2011 IFS Shocks

SHOCK	7043534
REBOUND	.625 x .065 .700 x .010 .800 x .010 .900 x .010 1.00 x .010 1.10 x .010 1.20 x .010
Piston Orifice	Shaft Bleed = .082 Piston Bleed = .052
COMPRESSION	1.30 x .006 1.00 x .006 1.20 x .060 .900 x .012 1.10 x .006 1.00 x .006 .900 x .006 .800 x .006 .700 x .006 .625 x .065 .875 x .090
CLICKER	1.10 X .025 1.00 X .015 .625 X .065

2011 Front Track Shocks

SHOCK	7043676	7043717
REBOUND	.700x.010 .800x.010 .900x.010 1.00x.010 1.100x.012 1.25x.010	.700x.010 .800x.010 .900x.010 1.00x.010 1.10x.010 1.25x.010
Piston Orifice	.070	.070
COMPRESSION	1.30x.006 .900x.008 1.25x.012 1.10x.008 1.00x.008 .900x.010 .800x.008 .700x.012	1.30x.008 1.25x.008 1.10x.008 .900x.006 1.25x.010 1.10x.010 1.00x.010 .900x.010 .800x.010 .875x.100

2011 Rear Track Shocks

	7043205	7043441
REBOUND	.625 x .065 .700 x .010 .800 x .010 .900 x .010 1.00 x .010 1.10 x .010 .8 00x .008 1.25 x .012	.700 x .012 .800 x .012 .900 x .012 1.00 x .012 1.10 x .012 1.25 x .012 1.25 x .012
Piston Orifice	Shaft Bleed = .082	.070
COMPRESSION	1.30 x .010 1.25 x .010 .700 x .010 1.10 x .008 .900 x .008 1.10 x .008 1.00 x .010 .900 x .010 .8 00x .008 .700 x .008 .625 x .065 .875 x .090	1.30 x .012 1.10 x .010 1.00 x .008 1.25 x .012 1.10 x .010 .900 x .008 .800 x .010 .700 x .012

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OPTIONAL SHOCK SETTINGS

Walker Evans Monotube IFS Air Shock

NOTE: When servicing any air IFS shock, recharge both shocks to the same pressure setting. Raise the vehicle off the ground or remove shocks completely.

Discharge the shock gas pressure completely before refilling the shock with nitrogen.

Raise the shock nitrogen gas pressure within each shock in 2.5 psi increments and keep the fill tool needle installed in the charge port for at least 30 seconds to allow the gas pressure to stabilize.

Perform work on shocks when shocks and nitrogen gas supply tank are at room temperature (70°F / 21°C).

Walker Evans IFS air shocks can be configured using the most current valve stack and nitrogen pressure settings. Updating 2007 shocks to current specifications will require changing the valve stack.

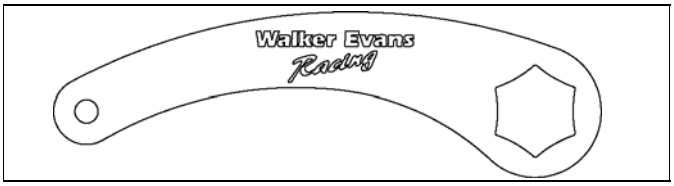
Walker Evans IFS Air Remote Reservoir Piggyback Shock

NOTE: When servicing any air IFS shock, recharge both shocks to the same pressure setting. Raise the vehicle off the ground or remove shocks completely.

Discharge the shock gas pressure completely before refilling the shock with nitrogen.

Perform work on shocks when shocks and nitrogen gas supply tank are at room temperature (70°F / 21°C).

The wrench tool, PN 5136694, is used to adjust the reservoir adjuster piston setting. The tool is supplied in the vehicle tool kit.



NOTE: Using another tool to turn the adjuster cap may damage the shock.

Turn the cap clockwise for a stiffer ride. Turn the cap counter-clockwise for a softer ride. Full soft is when 8 lines are visible. Each line represents approximately 40lbs. of spring rate at the mid-stroke.

Make changes in small increments (2 lines maximum).

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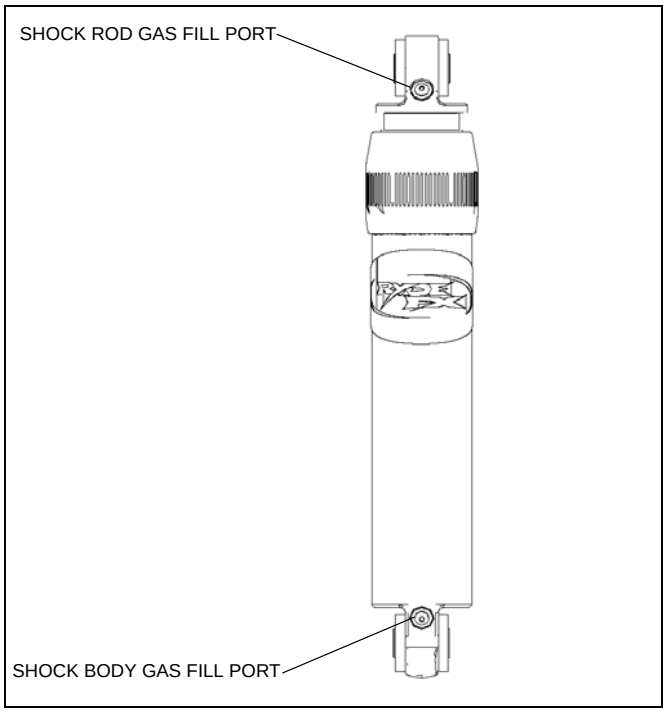
Ryde FX Air 2.0 Shock

The shock rod pressure setting can be adjusted to accommodate different rider weights and riding styles.

Before making any shock pressure adjustments, the rider should ride the snowmobile for at least 250 - 500 miles in all types of riding conditions.

NOTE: Do not adjust the shock body chamber pressure setting. Always charge the shock body chamber to specification.



Air 2.0 Shock Notes:

- All shock work must be performed when the shock assembly and nitrogen supply tank are at least 70°F. (21°C).
- Nitrogen pressure changes by approximately 2% for every 10°F from 70°F.
- Polaris calibrates all shocks at 30°F ride temperature.
- Any IFS shock service that requires gas recharging needs to be performed on both IFS shocks to maintain the same spring rate between both shocks.
- When charging any shock, let the nitrogen gas stabilize within the shock for at least 30 seconds before removing the shock charge needle from the charge port.

If the rider is requesting stiffer shock settings for more bottoming resistance, increase the shock rod nitrogen pressure in 5 PSI increments until the desired performance level is achieved.

⚠ CAUTION

Do not exceed 200 psi shock rod chamber pressure.

Always reset the shock body chamber pressure to the factory specification charge.

If the rider is requesting softer shock settings for less bottoming resistance, decrease the shock rod nitrogen pressure in 5 PSI increments until the desired performance level is achieved.

Again, always reset the shock body chamber pressure to the factory specification charge.

If one shock appears to be too soft, place the vehicle on flat, level ground. Stand on the sled, and rock the skis back and forth to verify issue.

Determine if the shock is leaking or has leaked an oil, then determine why. Look for shaft damage and replace the shaft and seal if damage is found.

If no oil leaks are found, verify there are no gas leaks at the charge ports. Replace the charge ports as required.

After inspecting both shocks, recharge both shocks to the desired pressure settings and specifications.

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SHOCK MAINTENANCE

Ryde FX Air 2.0 Shock Disassembly

⚠ WARNING

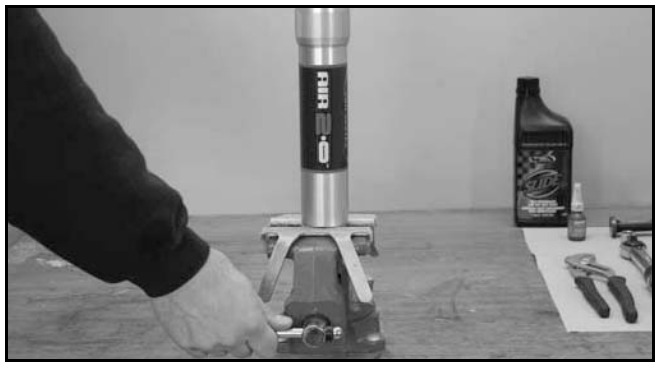
Before servicing a gas shock it is important that all the gas pressure be discharged from the shock.

Nitrogen gas is under extreme pressure. Protective eye wear must be worn at all times to avoid risk of injury while servicing shocks or using compressed air.

⚠ CAUTION

Always clamp the lower mount of the shock in a vise. Any other method of securing the shock body may deform the shock body cylinder.

1. Remove the shock from the snowmobile. Wash the entire shock assembly in parts cleaner, then dry with compressed air or a clean shop towel.
2. Remove lower shock body mount eyelet components. Secure shock in a soft-jawed table vise.



3. Remove both small bottom head screws form each pressure valve assemblies located at both ends of the shock.

4. Using a flat-blade screwdriver, carefully loosen both pressure valve assemblies counter-clockwise two full rotations. Allow all of the nitrogen gas to fully escape past each pressure valve assembly o-ring.

5. After all of the nitrogen gas has been allowed to escape from the shock, remove both pressure valve assemblies.

6. Using interlocking channel pliers, loosen and remove the cylinder head assembly.

7. Pour the oil out of the cylinder. Discard oil into an approved container and dispose appropriately. Never reuse shock oil.

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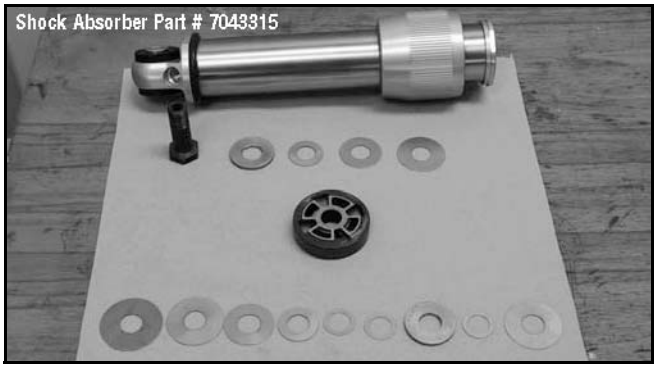
8. Using compressed air, invert the large diameter cylinder over a clean shop towel. Pressurize the cylinder to 90 psi to remove the IFP from the cylinder. Account for the floating piston, wear band, and o-ring.

9. Place the 36mm piston (shock) rod upper mount in a soft-jawed bench vise. Remove the piston valve and valve shim assembly from the rod in the sequence of disassembly.



10. Remove the rod head assembly and spring from the rod shaft.
11. Again, using compressed air, invert the rod shaft over a clean shop towel. Pressurize the cylinder to 90 psi to remove the IFP from the cylinder. Account for the floating piston and o-ring.
12. With the shock disassembled, inspect the following items:

    - 36mm piston rod for straightness, nicks, or burrs.
    - Cylinder head assembly / bearing.
    - Inside of shock body for scratches, burs, or excessive wear.
    - Teflon piston and IFP wear band for cuts, chipped or nicked edges, or excessive wear.
    - O-rings for nicks, cuts, or cracks.
    - Valve discs for kinks or waves.

Ryde FX Air 2.0 Shock Assembly

1. Place the 36mm piston rod upper mount in a soft-jawed bench vise. Lubricate the internal IFP and o-ring with shock oil.
2. Install the internal IFP, flat-side / o-ring side first, into the piston rod.
3. Install the rod head assembly. Torque to specification.

= T
Rod Head Bolt Torque 50 Ft.Lbs. (68Nm)

4. Install the compression and rebound valve shim stacks back on to the piston valve assembly in the order they were removed.
5. Apply a small amount of Loctite 290 to the bolt threads. Thread piston assembly into piston rod by hand.

6. Torque bolt to specification.

= T
Piston Valve Bolt Torque 28 - 32 Ft.Lbs.

CAUTION
DO NOT OVER-TORQUE PISTON VALVE BOLT.

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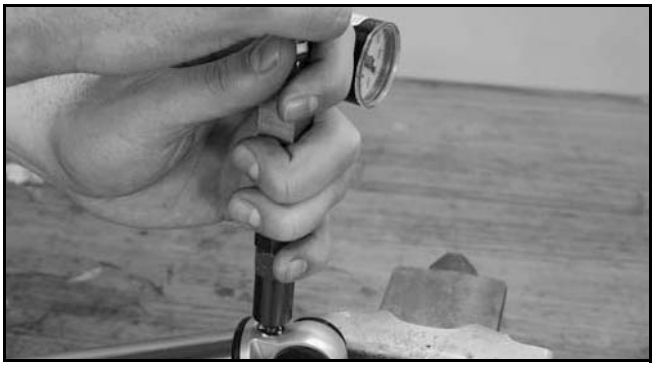
7. Apply a light film of grease to the 36mm rod assembly pressure valve port counter bore where the pressure valve assembly o-ring meets.
8. Install pressure valve assembly and torque to specification.

= T
Pressure Valve Assembly Torque 100 - 110 In.Lbs.

9. Pressurize the 36mm piston rod through the pressure valve with nitrogen gas to the specified pressure.



NOTE: The internal IFP will be forced to the top of the piston rod after cylinder is pressurized.

10. Secure the shock body lower mount in a soft-jawed bench vise.
11. Thread the head onto the IFP locator tool and adjust the top of the value indicator to the specified IFP measurement.

12. Apply a thin layer of oil to the IFP, wearband, and o-ring. Insert the IFP, o-ring side first, into the shock body.

13. using the IFP locator tool, slowly push the IFP down into the cylinder. The IFP is set to the correct position when the indicator knob makes contact with the shock body.

14. Install the pressure valve assembly into the valve port and torque to specification.

= T
Pressure Valve Assembly Torque 100 - 110 In.Lbs.

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15. Slowly fill the shock body with Ryde FX shock oil up to the level of the outer threads.

NOTE: Allow the shock to stabilize for several minutes and allow the air bubbles to escape to the top.
Wrap the shock body with clean shop towels to catch any shock oil spillage.

16. Invert the 36mm piston rod assembly and pour a small amount of shock oil into the center of the locking piston bolt until the oil flows back out of the hole.

17. Hold a finger over the bolt hole, then carefully insert the piston rod into the shock body cylinder. Slightly oscillate the piston rod to allow the piston to enter the shock body bore.

18. Slowly push the piston rod into the shock body until the cylinder head assembly bottoms on the cylinder counterbore. Slight up and down movement may be required to allow all air to pass through the piston assembly.
19. Using interlocking channel pliers, securely tighten the cylinder head on the shock body.

20. Pressurize the shock body cylinder with nitrogen gas to specification.
21. Install the small button-head screws back into each valve assembly.
22. Reinstall the eyelet hardware and test shock. After being compressed, the piston rod must fully extend from the body.

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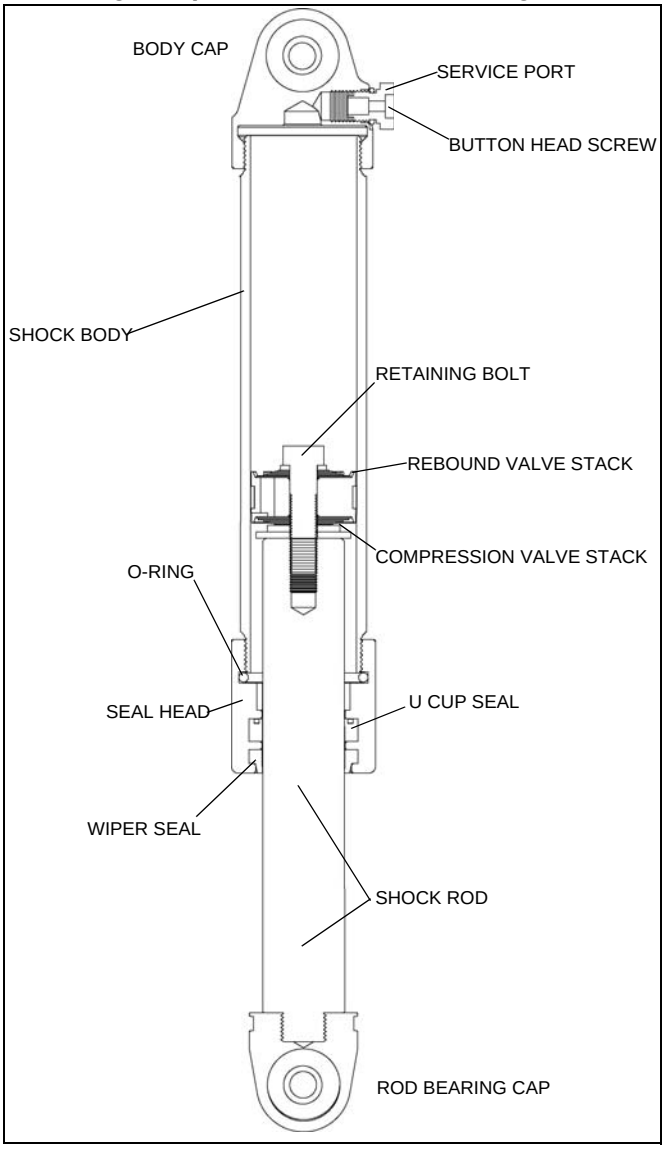
Walker Evans Air Shock Disassembly

IMPORTANT: Verify the protective outer boot is not torn or damaged. If damaged, inspect the shock shaft for damage. Replace shock shaft if damage is found.



1. Place the body cap of the shock in the vise so that the shock rod is facing downward.
2. Remove the service port screw and release the pressure with the shock charging needle. Verify all pressure is released.
3. Place the body cap in the vise, with the shock rod facing upward.
4. Slowly loosen the seal head and remove.
5. Empty all the shock oil from the shock body and discard.
6. Inspect the valve stack as needed. Replace any worn, wavy, or bent valve shims.
7. If valve shim service or adjustment is done, torque the piston retaining bolt to specification.

= T
Piston Retaining Bolt: 25-30 ft-lb (34-41 Nm)

8. Replace the wiper seal, u-cup seal and o-ring with new parts.

CAUTION
Take note of the orientation of the seal head seals. Use a soft-faced tool like a pen or similar object to install the o-ring and seals.

Walker Evans Air Shock Assembly

1. Place the specified amount of fluid into the shock body.

CAUTION
Do not overfill the shock oil level. Too much shock oil may cause the shock rod to hydrolock.

2. Install the seal head assembly. Torque to specification

= T
Seal Head Assembly Torque: 25 - 35 ft-lb (34 - 47 Nm) DO NOT OVER-TORQUE

3. Pressurize the shock to specification. Hold the fill tool needle in the port for at least thirty seconds to allow the oil to absorb the nitrogen gas.

IMPORTANT: Never re-insert the fill tool needle back into the shock to check pressure after initial charging. The amount of gas required to fill the tool will give a false pressure reading.

Always completely discharge the shock and refill to obtain an accurate pressure reading.

4. Check for any leaks.
5. Reinstall the protective boot and carefully reinstall shock.

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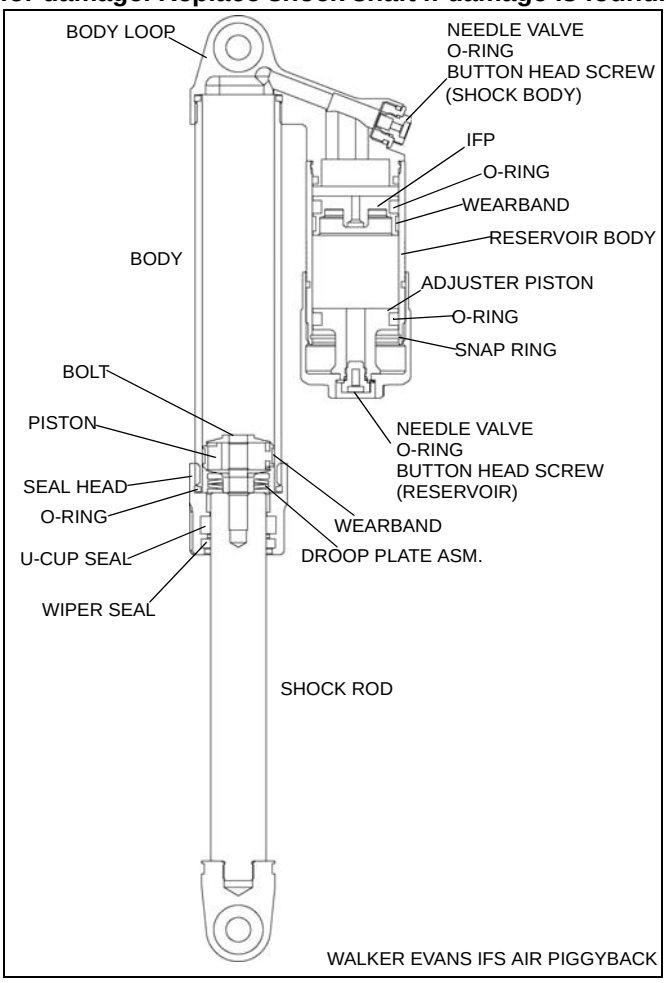
Walker Evans Air Piggyback Shock Disassembly

IMPORTANT: Verify the protective outer boot is not torn or damaged. If damaged, inspect the shock shaft for damage. Replace shock shaft if damage is found.



NOTE: The reservoir can remain charged and left alone if the technician only desires changing the shock oil and/or servicing the rod piston valve stack - seal head assembly.

1. Install the foam sleeve on the shock shaft and remove from the vehicle. Clean the shock.
2. Inspect the shock rod. The rod will have to be replaced if there are nicks or gouges in the shaft surface.
3. Secure the body loop in a bench vise.
4. Remove the button head screws from the shock body service port. You only have to depressurize the reservoir chamber if reservoir service is required.
5. Wrap a clean shop towel around the service port, and then insert the needle of the charge tool into the shock body service port for at least 30 seconds to release all of the nitrogen gas. Perform this step with the reservoir service port if required.
6. Turn the reservoir adjuster cap to the full soft position (all 8 lines visible).
7. Remove the seal head from the shock body with a large adjustable wrench. Extract the shock rod assembly from the shock body.
8. Remove the shock from the vise and pour the oil into an appropriate container. Remove the shock body service port.
9. When servicing the reservoir, remove the adjuster cap service port. Turn the adjuster cap counterclockwise until the cap comes off the reservoir body.
10. Remove the snap ring. Carefully extract the adjuster piston from the reservoir. Discard the o-ring and replace with new.
11. Point the reservoir body down while holding a hand towel over the open end. Insert an air chuck into the shock body service port and blow the IFP out of the reservoir.
12. Discard the wearband and o-ring. Replace with new parts.
13. Remove the bolt securing the piston assembly to the shock rod. Remove the valve shims and place them on a paper towel or shop rag in the order in which they are removed.
14. Remove the washers and droop plates from the rod. Carefully pull the seal head off of the shock rod.
15. Inspect the washers and shims for any damage or warping. Replace parts as required. Replace the piston valve wearband.
16. Replace the seal head o-ring, u-cup seal, and wiper seal with new parts. Apply a thin coat of grease to the o-ring, and seals to aid assembly.

⚠ CAUTION

Take note of the orientation of the seal head seals. Use a soft-faced tool like a pen or similar object to install the o-ring and seals.

NOTE: The split bushing pressed into the seal head is not serviceable.

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Walker Evans Air Piggyback Shock Assembly

1. If the reservoir has been disassembled, begin the assembly process by assembling the reservoir.
2. Install the reservoir IFP with the o-ring down and wear band up into the reservoir. Push the IFP down until it bottoms out in the reservoir.
3. Lubricate the adjuster piston's o-ring with shock oil and then install into reservoir just below the snap ring groove.
4. Install the snap ring, and then pull the adjuster piston up against the ring.
5. Screw the adjuster cap on to the reservoir until it seats against the adjuster piston. Install the service port. Hand tighten the service port into the adjuster piston.

NOTE: Do not over-torque the service port into the adjuster piston.

6. Turn the adjuster cap to the full soft position (all 8 lines showing on reservoir body).
7. Charge the reservoir with nitrogen gas to the specified pressure.
8. Install the button head screw into the service port.
9. Install the service port into the shock body.
10. Fill the shock body with the specified amount of Walker Evans 5W Shock Oil.

⚠ CAUTION
Do not overfill the shock oil level. Too much shock oil may cause the shock rod to hydrolock.

11. Gently rotate the shock body to release as much trapped air as possible.

NOTE: A small a amount of air will always be present when adding shock oil due to the design of the shock. This isn't a problem because the shock is an emulsion design where the gas and oil are mixed.

12. Reinstall the shock rod valve stack. Verify the valve stacks are installed as they were removed. Torque the valve stack bolt to specification.

= T
Valve Stack Bolt Torque 25 - 30 Ft.Lbs. (34 - 41 Nm)

13. Carefully install the shock rod into the shock body. Install slowly to reduce oil loss and to prevent oil foaming.
14. Slowly stroke the piston valve stack up and down under the top level of the oil.
15. Screw the bearing head on to the shock body. torque to specification.

= T
Bearing Head Torque 25 - 35 Ft.Lbs. (34 - 47 Nm)

16. Screw the bearing head on to the shock body. torque to specification.
17. Pressurize the shock to specification. Hold the fill tool needle in the port for at least thirty seconds to allow the oil to absorb the nitrogen gas.

IMPORTANT: Never re-insert the fill tool needle back into the shock to check pressure after initial charging. The amount of gas required to fill the tool will give a false pressure reading.

Always completely discharge the shock and refill to obtain an accurate pressure reading.

18. Check for any leaks.
19. Reinstall the protective boot and carefully reinstall shock.

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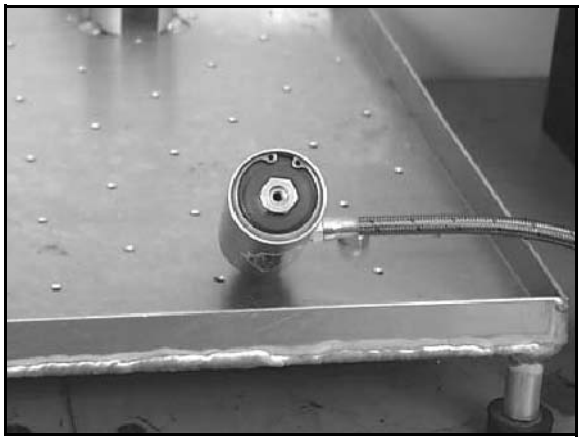
Walker Evans Remote Reservoir / Piggyback Shock Disassembly

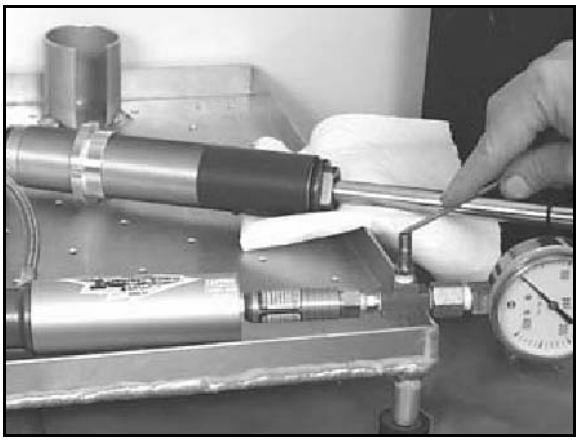
NOTE: Remote reservoir shock shown.

IMPORTANT: To prevent damage or marks to the shock, the use of soft jaws on a vise is recommended.

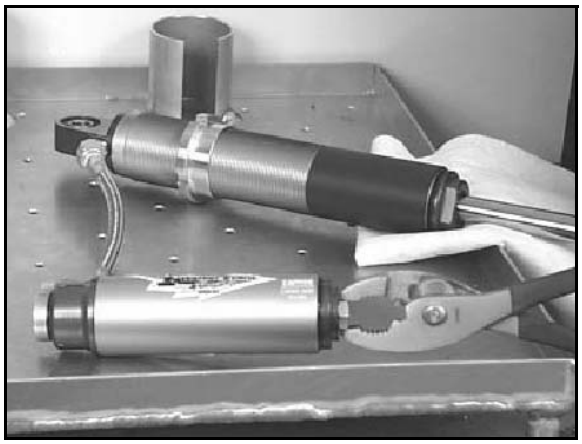
1. Clean and carefully remove shock from the suspension.
2. Remove button head screw from reservoir cap (if applicable).



3. Insert safety needle carefully and depressurize the shock.



4. Press the end cap into the reservoir to access the snap ring.
5. Remove the snap ring, then remove the cap from the body.



6. Place the shock lower eyelet in a vise.
7. Loosen and remove the bearing cap from the shock.
8. Remove the used oil from the shock body.

NOTE: Insert the IFP tool (PN PS-45908) and cycle the internal floating piston (IFP) a few times to purge the shock oil from the reservoir.

9. Remove the IFP from the reservoir with the IFP tool (PN PS-45908).
10. Clean and inspect ALL parts and replace worn out parts if needed.

IMPORTANT: Seal kits are available and should be installed at this time if seals or o-rings are damaged or worn.

11. Place the shock rod in a vise so that the threaded part is facing upward.
12. Place the valve stack on a clean shop towel in order of removal.

NOTE: Place the valve stack on a clean shop towel in case you have to move them. This will also help when assembling them back onto the shock rod.

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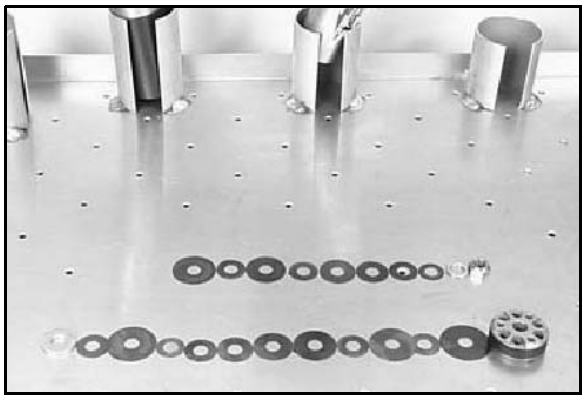


13. Inspect the valves for kinks, waves, pits or foreign material.
14. Inspect the piston wear band and replace if damaged or worn.

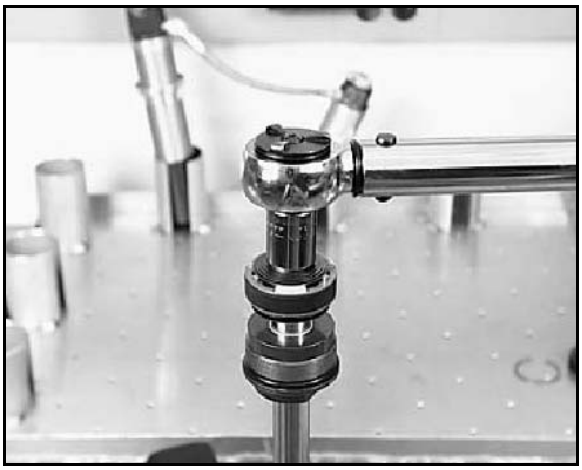
Walker Evans Remote Reservoir / Piggyback Shock Assembly

1. Secure the shock rod in a vise with the threads of the rod facing up.
2. Place the compression valve stack on the rod in the reverse order of disassembly.
3. Place the valve piston on top of the compression stack.

4. Place a new lock nut onto the shock rod. Torque the new lock nut to specification.

= T
Lock Nut Torque: 14 ft-lb (19N-m)

IMPORTANT: Do not over torque or damage to the valve stack can occur.



5. Secure the shock body by its lower mount.
6. Set the compression damping adjustment selector to position “1”.
7. Fill the shock body and remote reservoir 1/2 full of Walker Evans 5w shock oil (PN 2874522).
8. Apply a thin film of oil to the IFP o-ring and floating wear band located on the shock rod piston.
9. Compress the wear band and insert the IFP into the reservoir. Allow as much air as possible to escape as you install the piston.

10. Screw the IFP tool, PN PS-45908, into the IFP.
11. Hold or place the reservoir as low as possible so the air will travel upward as you slowly cycle the IFP up and down.
    - Be sure to bottom out the piston in the reservoir body.
    - Allow time for the bubbles to dissipate.
    - Repeat the process until all the air has been removed.

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12. Set the IFP so it is approximately 1/8 from the bottom of the reservoir. Install the bleed screw.

13. With the cylinder head assembly pushed down against the valve piston, dip the piston assembly in shock oil.

14. Fill the shock body with oil to the bottom of the threads. Carefully insert the piston rod and valve assembly into the cylinder.

    - Slightly oscillate the piston rod to allow the piston to enter the shock body bore as it purges the air out
    - Slight up and down movement may be required to allow all the air to pass through the piston assembly.

15. Slowly push the piston rod and assembly into the shock body until the threads can be engaged.

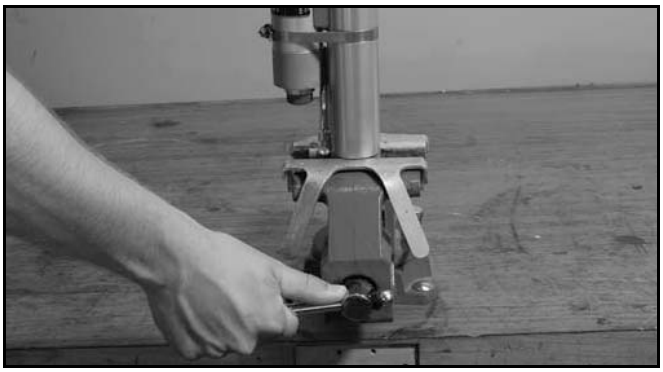
NOTE: During installation, some shock oil will over flow. Wrap a shop cloths around the shock body to catch any oil overflow.

IMPORTANT: Fast installation of the piston rod and assembly may displace the internal floating piston (IFP) from its original position. Performance issues will be a result if the IFP is not in its specified position.

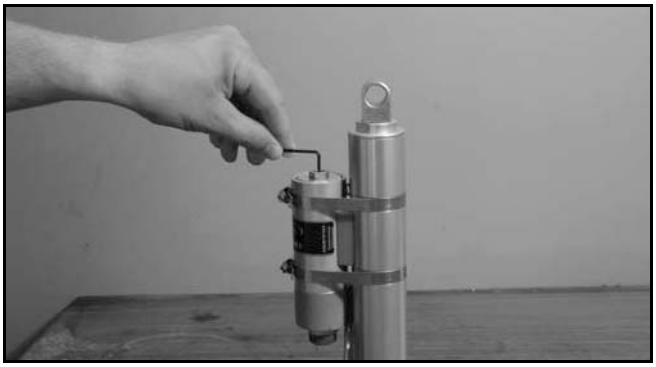
16. Tighten the cylinder head onto the shock body.
17. Verify the IFP is set at the specified depth. If not, verify there is oil on top of the IFP, then open the bleed screw.
18. Set the IFP to specification, then close the bleed screw.
19. Pour out any remaining shock oil from the reservoir.
20. Install the cap making sure the o-ring does not flip-over. Install the snap ring.
21. Charge the shock to the specified pressure.
22. Clean the shock of all oil reside and check for any leaks.
23. Install button screw onto the reservoir cap.

Ryde FX Remote Reservoir Shock Disassembly

1. Remove the bushings and eyelet components from the lower shock body. Mount the shock in a soft-jawed bench vise.



2. Remove the button head screw from the pressure valve assembly.



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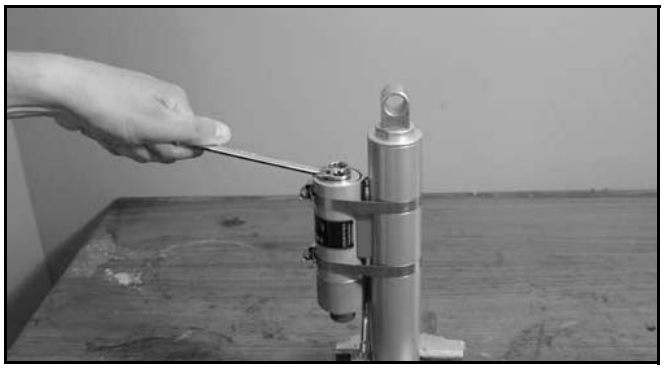
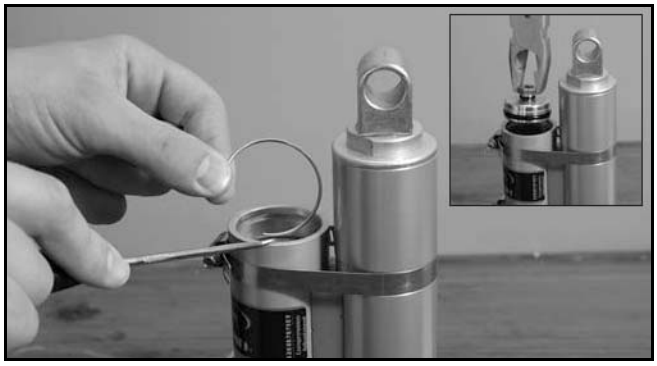
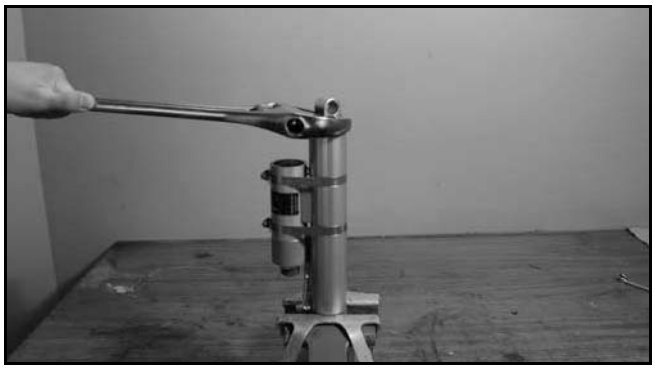
3. Slowly open the pressure valve assembly. Allow all of the nitrogen gas to escape from the reservoir and shock assembly.



4. When all of the gas has escaped the reservoir, carefully push the reservoir cap down to expose the c-clip. Using a pick, remove the c-clip from the reservoir body.
5. Remove the cap from the reservoir body.



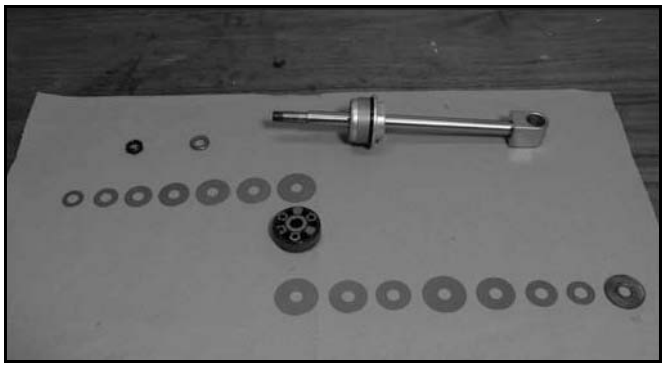
6. Using an adjustable wrench, slowly remove the shock rod bearing cap from the shock body.



7. Using a 1/8” Allen Wrench, remove the bleed screw from the IFP inside the reservoir. Verify the o-ring comes out with the screw.
8. Use a pliers to remove the IFP from the reservoir. Verify the wear band and o-ring come out with the IFP.
9. Pour out all of the shock oil into an appropriate storage container. Dispose of oil properly.

NOTE: Do not reuse shock oil.

10. Place the shock rod in a soft-jawed bench vise. Remove the valve shim stack and piston nut. Remove the shims and piston as they are arranged on the shaft.



11. With the shock disassembled, inspect the following items:

- Piston rod for straightness, nicks, or burrs.
- Cylinder head assembly / bearing.
- Inside of shock body for scratches, burs, or excessive wear.
- Teflon piston and IFP wear band for cuts, chipped or nicked edges, or excessive wear.
- O-rings for nicks, cuts, or cracks.
- Valve discs for kinks or waves.
- Hose for kinks or cuts.

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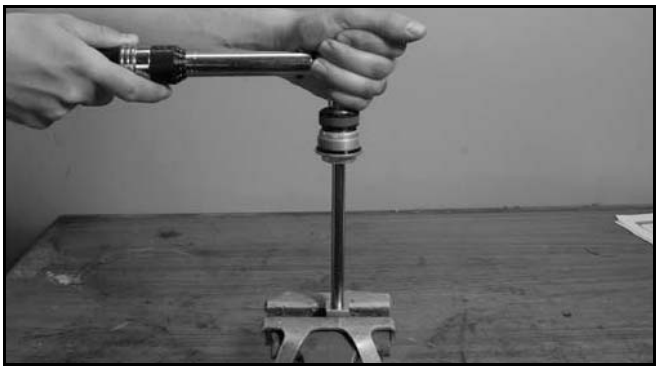
Ryde FX Remote Reservoir Shock Assembly

1. Install the shock rod in a soft-jawed bench vise.
2. Reassemble the valve shim stacks and piston in the order in which they were removed.
3. Torque nut to specification.



CAUTION

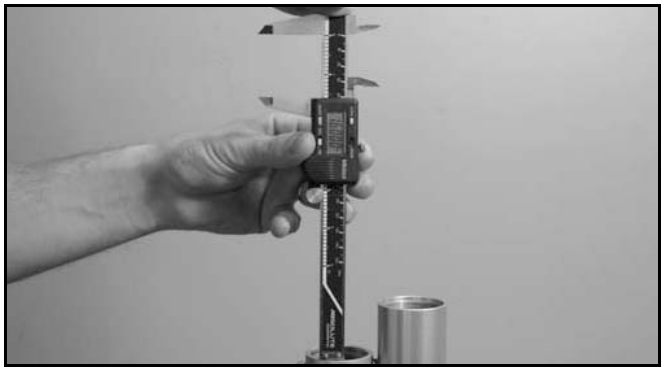
DO NOT OVERTIGHTEN THE NUT. DAMAGE TO THE SHOCK ROD MAY OCCUR.

= T

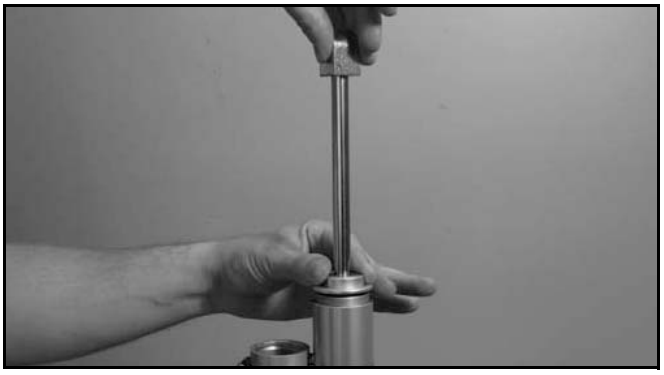
Shock Rod Lock Nut Torque
15 - 20 Ft.Lbs. (21 - 28 Nm)

4. Secure the shock body in a soft-jawed bench vise.
5. Fill the shock body with new Ryde FX shock oil. Fill until the level of the oil is one inch below the top of the reservoir body.

6. Using a Vernier Caliper, set the caliper leg to the specified IFP locating position for the shock.
7. Apply a thin layer of shock oil to the IFP o-ring and wear band.
8. Carefully install the IFP back into the reservoir. Set the IFP to the specified depth. Take care not to damage the IFP wear band while setting the IFP depth.



9. When the IFP is set to the depth specification, reinstall the bleed screw.
10. Fill the shock body with new Ryde FX shock oil to the bottom of the shock body threads.
11. Carefully and slowly install the shock rod / bearing assembly back into the shock body. Use a slight up and down movement to dispose of any air trapped below the piston assembly.



12. Using an adjustable wrench, secure the bearing cap assembly to the shock body.
13. Pour all of the remaining oil out of the reservoir body into a suitable container.
14. Apply a light film of Lithium grease to the pressure valve counter bore on the reservoir cap.
15. Apply a thin layer of shock oil to the cap o-ring, then carefully reinstall the cap back into the reservoir. Push cap just below the c-clip groove.

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16. Use a pliers to pull the cap up against the c-clip.

17. Charge the reservoir with nitrogen to the specified pressure. Once pressurized, the shock rod should fully extend.
18. With pressure working against the reservoir cap, secure the pressure valve into the cap, then remove the shock fill tool from the valve. Reinstall the button head screw.

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RYDE FX MONO-TUBE SHOCK DISASSEMBLY

Procedures for the proper disassembly and assembly of Ryde FX gas charged IFP and emulsion mono-tube shock absorbers.

⚠ CAUTION

BEFORE SERVICING A GAS SHOCK IT IS IMPORTANT THAT ALL THE GAS PRESSURE BE DISCHARGED FROM THE UNIT. REFER TO THE INSTRUCTIONS LISTED BELOW FOR THE PROPER PROCEDURE OF DISCHARGING THE GAS PRESSURE FROM A SHOCK. PROTECTIVE EYE WEAR SHOULD BE WORN TO AVOID RISK OF INJURY WHILE SERVICING RYDEFX GAS CHARGED MONO-TUBE SHOCKS.

1. Remove the shock(s) from the vehicle.
2. Before unscrewing pre-load springs, measure the compressed length of the installed spring and mark position for reinstallation.
3. If the shock incorporates a spring, remove the spring and all collateral retainers.

⚠ CAUTION

When removing the spring from a shock that utilizes a fixed lower retainer; the use of a proper spring compressor should be used to avoid risk of bodily injury.

4. Wash the shock body in parts cleaner; then dry with compressed air to remove sand and dirt.

⚠ WARNING

WHEN USING COMPRESSED AIR TO DRY COMPONENTS, PROTECTIVE EYE WEAR SHOULD BE WORN TO AVOID RISK OF INJURY.

5. Remove bearing, sleeve and/or bushings from lower shock mount eyelet. Secure the lower mount of the shock in a vise. The use of soft jaws is recommend to prevent damage or marks to the shock.

⚠ CAUTION

It is important that the gas shock be retained in the vise by the lower mount. Any other method of securing the chock body during these procedures may deform the shock body cylinder.

6. Remove the small button head screw from the pressure valve assembly.
7. Depressurize the shock.

⚠ WARNING

NITROGEN GAS IS UNDER EXTREME PRESSURE. USE CAUTION WHEN RELEASING NITROGEN GAS FROM SHOCK. PROTECTIVE EYE WEAR SHOULD BE WORN TO AVOID RISK OF INJURY.

8. Internal Floating Piston Shocks, using a slotted screwdriver, loosen the pressure valve assembly counter-clockwise two full revolutions allowing the gas pressure to fully escape past the pressure valve assembly O-ring.
9. Emulsion Shocks: With the shock inverted and the piston rod fully extended, secure the lower mount of the shock in a vise. Allow a couple of minutes for the gas pressure to separate from the oil and rise to the top. Using a rag as a shield to prevent spraying gas and oil; place rag over top the pressure valve assembly and slowly loosen the valve assembly with slotted screw driver three full revolutions, allowing all the gas pressure to escape past the pressure valve assembly O-ring.
10. Allow all the gas pressure to escape before proceeding with the removal of the pressure valve assembly. Pressurized gas and shock oil could eject the valve assembly from the cylinder resulting in bodily injury.
11. Using a slotted screwdriver, remove the pressure valve assembly from the lower end mount. Account for an O-ring.
12. Using an adjustable face spanner (PN PS45262), fully loosen and remove cylinder head assembly.
13. Pour the oil out of the shock body. Discard old oil into an approved storage container and dispose appropriately. Never reuse damper oil during shock rebuild.
14. Using the I.F.P extraction tool thread the tool into the I.F.P and pull upwards, removing the I.F.P from the shock body. Account for wear band and an O-ring. Note: Not applicable for emulsion shock
15. Clean the inside of the shock body using clean parts-cleaning solvent and blow dry using compressed air.
16. Place the shock piston rod upper mount in bench vise, begin piston and valve removal. Arrange parts removed in the sequence of disassembly. The piston should have the flat slots facing the nut end (as highlighted in black).
17. Items to inspect: Piston rod for straightness, nicks or burrs. Cylinder Head Assembly / DU Bearing clean, inspect, or replace. Inside of shock body for scratches, burrs or excessive wear. Teflon piston and I.F.P wear band for cuts, chipped or nicked edges, or

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excessive wear. O-rings for nicks, cuts, or cracks. Cap and rod seals for nicks, cuts or cracks. Valve discs for kinks or waves. Compression bumpers (ski shocks only) for chipping, cracking or missing. Should any of these items be in question replacement is recommended.

RYDE FX MONO-TUBE SHOCK ASSEMBLY

1. Place the piston rod upper mount into the vise. Reassemble damper rod assembly in the reverse order of disassembly. Special attention should be paid the order of the Rebound and Compression disc (shim) stacks, ensuring that they are in the same order prior to disassembly. Tighten the lock nut to 15-20 ft-lb. of torque. DO NOT OVER-TORQUE. If excessive torque is applied, damage to the piston and valves will occur.
2. Secure the shock body by its lower mount in vise. The use of soft jaws is recommend to prevent damage or marks to the shock. It is important that the gas shock be retained in the vice by the lower mount. Any other method of securing the shock body during these procedures may deform the shock body cylinder.

NOTE: The next points on IFP are not applicable for emulsion shocks. Proceed to assembly of the pressure valve.

3. Thread the positioning head onto the I.F.P locator tool and adjust the top of the value indicator to the appropriate measurement. Depending on which shock absorber is being worked on, adjust the piston location tool to the specified depth indicated in the shock specification chart.
4. Apply a thin film of oil onto the floating wear band and O-ring and install the floating piston into the top of the shock body, positioning it below the counterbore.
5. Using the tool as a handle, push the floating piston down into the shock body, being careful not to damage I.F.P wear band and O-ring, until the value indicator knob comes in contact with the shock body. The piston should now be located correctly.
6. Screw the pressure valve assembly into the valve port by hand with a slotted head screwdriver; and tighten to 100-110 in.lb of torque.
7. Fill the shock body with shock oil. Internal Floating Piston Shocks: Fill the shock body with shock oil to the bottom of the thread within the cylinder. Emulsion Shocks: Fill shock body with 110cc's of oil. This will allow for the required air space to properly gas charge the shock with nitrogen gas.

NOTE: After filling the shock body with oil, allow a couple of minutes for all air bubbles to rise to the top.

8. With the cylinder head assembly pushed down against the piston, carefully, insert the piston rod and assembly into the cylinder; Slightly oscillating the piston rod to allow piston to enter shock body bore. A light coating of oil on the piston wear band will ease installation.
9. Slowly push the piston rod and assembly into shock body until the cylinder head assembly bottoms on the cylinder counterbore. Slight up and down movement may be required to allow all air to pass through piston assembly.
10. During installation, some shock oil will overflow. Wrap a shop cloth around shock body to catch possible oil overflow. Fast installation of the piston rod and assembly may displace the floating piston from its original position. This must not occur if the damper is expected to perform as designed.
11. Using an open face spanner wrench tighten cylinder head securely into the shock cylinder.
12. Pressurize the shock, through the pressure valve, with nitrogen gas to the specified pressure.
13. If using RydeFX inflation tool Refer to Procedures for use of replaceable inflation needle instruction manual found in the RydeFX inflation tool case.
14. After being compressed, the piston rod should fully extend from the shock body once the shock has been pressurized.
15. Install the small button head screw in the pressure valve assembly and tighten securely.
16. Reinstall sleeve and bushings in lower shock mount.

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FOX PS-5 DISASSEMBLY

1. Remove the shock from the vehicle.
2. Remove the steel sleeve from the eyelet using the mallet and an appropriate sized socket.
3. Pry the polyurethane bushings out using the flat blade screwdriver, being careful not to scratch the body cap.
4. Clean the entire shock assembly with soapy water. Try to remove as much dirt and grime as possible by scrubbing with a soft bristle brush. Never pressure wash your shock, as this can force water and debris inside which will damage the seals. Dry the shock assembly with compressed air, if available, or use clean towels.
5. Use a 3/32" Hex Key to remove the button head screw from the FOX air valve in the shock body.
6. Securely clamp Fox Nitrogen Safety Needle in vice.

> **⚠ CAUTION**
>
> Point air valve away from face and body when charging or discharging any shock.

7. Insert the Fox Safety Needle squarely into center of gas valve.
8. Using a blunt object, depress the air valve core to release pressure.
9. When the shock is FULLY DISCHARGED, pull reservoir away from the Fox Safety Needle in a straight, smooth motion.
10. Clamp the body end eyelet of the shock securely in vice with shaft side up.
11. Using the 1 3/8" wrench, loosen and unscrew the bearing assembly from the shock body. If the body cap unscrews instead of the bearing, that is OK. You will need to remove both for this rebuild procedure.
12. Clamp the shock in the vice using the body clamp blocks. If the bearing is still in the body, use the 1 3/8” end wrench to loosen and un-thread the bearing. If the body cap is what needs removal, use the large crescent wrench to loosen and unthread the body cap.
13. Remove the shaft assembly from the body tube, and place on a clean, lint free paper towel. Remove the shock from the vice and pour shock oil from body tube into a proper disposal container. Do not re-use old shock oil.
14. Using the handle of the mallet, push the IFP out of the shock body on to a folded shop towel.
15. Remove the bleed screw from the IFP using the 1/8" T-Handle
16. Clean the IFP with solvent. Dry with compressed air in a well ventilated area. If compressed air is not available, dry parts using clean, lint free paper towels and let sit in a well ventilated area to allow the solvents to evaporate.
17. Set body assembly aside on a clean, lint free towel.
18. Clamp the shaft eyelet securely in vice with the piston end up.
19. Using a 9/16" wrench, remove the piston lock nut from the end of the shaft.
20. Hold the tip of the Phillips Head Screwdriver against the end of shaft. Hold the piston assembly under the top-out plate and lift upwards. Slide the piston assembly onto the shaft of the screwdriver. Pull the Screwdriver away from shock shaft while supporting the piston assembly. Set this on a clean, lint free towel. There are many pieces to the piston assembly, and the assembly order of these pieces is critical to the proper performance of your shock. This step ensures that the proper order is kept.
21. Slide bearing assembly off of shaft. Use extreme caution not to scratch inside of the bearing assembly when passing it over the threads at end of shaft and set it on a clean, lint free towel.
22. Remove the bleed screw from the IFP and set them both on a clean, lint free towel.

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FOX PS-5 ASSEMBLY

1. Using a small pair of snap ring pliers, remove the snap ring from the bearing housing. Using your fingers, remove the FIST scraper from the housing. Use a scribe or a dental pick to remove the o-ring from the inside of the FIST scraper by "spearing" the seal with the point of the scribe and pulling it out. Use extreme caution when using a scribe to remove seals. Always "spear" the seal with the point of the scribe. Do not wedge the point of the scribe in behind the seal. This can scratch the surface of the seal groove which will compromise the performance and reliability of the shock absorber.
2. Use the scribe to remove the u-cup wiper and o-ring seals from the bearing housing. Be careful not to scratch the seal grooves or the DU bushing that is pressed into the bearing.
3. Thoroughly clean the FIST scraper, bearing housing, and piston assembly with solvent. Dry with compressed air in a well ventilated area. If compressed air is not available, dry parts using clean, lint free paper towels and let sit in a well ventilated area, to allow the remaining solvent to evaporate.
4. Use a scribe or dental pick to remove the o-ring seal from the IFP.
5. Install the new, well lubricated, o-ring into the FIST scraper. Check to make sure the seal is properly seated, and is not twisted. If a tool is required to aid in proper seating of o-ring, use the non-writing end of a pen, or a similar soft, blunt object, to push it in.
6. Install the new, well lubricated, o-rings into the bearing housing. Correct placement of the shaft seal o-ring is in the groove next to the DU bushing. Check to make sure the seals are properly seated, and are not twisted. If a tool is required to aid in proper seating of o-ring, use the non-writing end of a pen, or a similar soft, blunt object, to push it in.
7. Install the new u-cup seal into bearing. U-cup should be installed so the cupped end is facing the DU bushing inside of bearing. Check to make sure seal is properly seated. If a tool is required to aid in proper seating of U-cup seal, use the non-writing end of a pen, or a similar soft, blunt object, to push it in.
8. Install FIST bearing into housing. Check for proper orientation of the FIST bearing. The stepped side of the FIST bearing should be visible.
9. Using a small pair of snap-ring pliers, install the snap-ring into the bearing housing. Check for proper orientation of the snap ring. The flat side of the snap-ring should be visible. Check to make sure the snap-ring is properly seated.
10. Install the new, well greased o-ring onto the IFP.
11. Install a new, o-ring on the IFP bleed screw.

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